

The undersigned requests that the present international application be processed according to the Patent Cooperation Treaty.

receiving Office use only
International Application, to.
International Filing Date
Name of receiving Office and "PCT International Application"
Applicant's or agent's file reference

	Applicant's or agent's file reference (if desired) (12 characters maximum) 2002.002	
Box No. I TITLE OF INVENTION		
MEMBRANE MODULE FOR SEPARATION OF FLUIDS		
Box No. II APPLICANT This pe	son is also inventor	
Name and address: (Family name followed by given name; for a legal en	ity, full official designation. Telephone No.	
Name and audiess. (Pama) hade potently country. The country of the address must include postal code and name of country. The country of the Box is the applicant's State (that is, country) of residence if no State of reside	713.431.4811	
EXXONMOBIL UPSTREAM RESEARCH COMPANY P. O. Box 2189 Houston, Texas 77252-2189 United States of America	713.431.4664 Teleprinter No.	
	Applicant's registration No. with the C	Office
State (that is, country) of nationality:	State (that is, country) of residence: US	
This person is applicant all designated for the purposes of:	mated States except the United States the States indicated States of America only the Supplement	cated in ital Box
Box No. III FURTHER APPLICANT(S) AND/OR (I	URTHER) INVENTOR(S)	
Name and address: (Family name followed by given name; for a legal en The address must include postal code and name of country. The country of Box is the applicant's State (that is, country) of residence if no State of Rules is not	applicant only  applicant and inventor  inventor only (If this check-box is marked, do not fill in below.)  Applicant's registration No. with the or	.)
State (that is, country) of nationality: US	State (that is, country) of residence: US	<del></del>
This person is applicant all designated all designated for the purposes of:	gnated States except the United States the States indited States of America only the Supplement	icated in ntal Box
Further applicants and/or (further) inventors are indica	ed on a continuation sheet.	
Box No. IV AGENT OR COMMON REPRESENTA	TIVE; OR ADDRESS FOR CORRESPONDENCE	
The person identified below is hereby/has been appointed to of the applicant(s) before the competent International Author	nues as.	ntative
Name and address: (Family name followed by given name; for a legal The address must include postal code and name of	ntity, full official designation. Telephone No.	
COLLINS, Douglas J. ExxonMobil Upstream Research Company	Facsimile No. 713.431.4664	
P. O. Box 2189 Houston, Texas 77252-2189 United States of America	Teleprinter No.	_
	Agent's registration No. with the Off 43,561	
Address for correspondence: Mark this check-box v	there no agent or common representative is/has been appointed and ss to which correspondence should be sent.	i the
Space above is used instead to instance a special	2003) See Notes to the rea	uest fort



DESIGNATION OF STATES Box No.V

Mark the applicable check-boxes

: at least one must be marked.

The following designations are hereby made under Rule 4.9(a):

#### Regional Patent

- ARIPO Patent: GH Ghana, GM Gambia, KE Kenya, LS Lesotho, MW Malawi, MZ Mozambique, SD Sudan, SL Sierra Leone, SZ Swaziland, TZ United Republic of Tanzania, UG Uganda, ZM Zambia, ZW Zimbabwe, and any other State which is a Contracting State of the Harare Protocol and of the PCT (if other kind of protection or treatment desired, specify on dotted line)
- Eurasian Patent: AM Armenia, AZ Azerbaijan, BY Belarus, KG Kyrgyzstan, KZ Kazakhstan, MD Republic of Moldova, RU Russian Federation, TJ Tajikistan, TM Turkmenistan, and any other State which is a Contracting State of
- European Patent: AT Austria, BE Belgium, BG Bulgaria, CH & LI Switzerland and Liechtenstein, CY Cyprus, CZ Czech Republic, DE Germany, DK Denmark, EE Estonia, ES Spain, FI Finland, FR France, GB United Kingdom, GR Greece, IE Ireland, IT Italy, LU Luxembourg, MC Monaco, NL Netherlands, PT Portugal, SE Sweden, SI Slovenia, SK Slovakia, TR Turkey, and any other State which is a Contracting State of the European Patent Convention and of the PCT **EP**
- OA OAPI Patent: BF Burkina Faso, BJ Benin, CF Central African Republic, CG Congo, CI Côte d'Ivoire, CM Cameroon, GA Gabon, GN Guinea, GQ Equatorial Guinea, GW Guinea-Bissau, ML Mali, MR Mauritania, NE Niger, SN Senegal, TD Chad, TG Togo, and any other State which is a member State of OAPI and a Contracting State of the PCT (if other kind of protection or treatment desired, specify on dotted line

Na	tional I	Patent (if other kind of protection or i	treat	tment	desired, specify on dotted line):			
	AE	United Arab Emirates	X	GM	Gambia	_		New Zealand
	AG	Antiona and Barbuda	$\mathbf{X}$	HR	Croatia	X	OM	Oman
	AL	Albania	X	HU	Hungary	$\mathbf{X}$	PH	Philippines
	AM	Armenia	X	ID	Indonesia	$\mathbf{z}$	PL	Poland
_	AT	Austria	X	IL.	Israel	$\mathbf{x}$	PT	Portúgal
		Australia		IN	India	X	RO	Romania
	AZ	Azerbaijan	X	IS	Iceland	X	RU	Russian Federation
=	BA	Bosnia and Herzegovina	X	JP	Japan			
	BB	Rarhados	X	ΚE	Kenya	×	SC	Seychelles
_	BG	Bulgaria	$\boxtimes$	KG	Kyrgyzsta	X	SD	Sudan
	BR	Brazil		KР	Democratic People's Republic	$\boxtimes$	SE	Sweden
_	BY	Belarus			of Korea	X	SG	Singapore
	BZ	Belize	X	KR	Republic of Korea	X	SK	Slovakia
_	CA	Canada	×	ΚZ	Kazakhstan	X	SL	Sierra Leone
	CHA	LI Switzerland and Liechtenstein						Tajikistan
	CN	China	×	LK	Sri Lanka	X	TM	Turkmenistan
=	CO	Colombia	X	LR	Liberia	X	TN	Tunisia
=	CR	Costa Rica	X	LS	Lesotho	X	TR	Turkey
=	CU	Cuba	$\overline{\mathbf{x}}$	LT	Lithuania	X	TT	Trinidad and Tobago
_	CZ	Czech Republic	図	LU	Luxembourg			
	DE	Germany	図	LV	Latvia	X	TZ	United Republic of Tanzania
_	DE DK	Denmark	図	MA	Morocco			
	DM	Dominica	図	MD	Republic of Moldova	X	UG	Uganda
						X	US	United States of America
	DZ	Algeria	121	MG	Madagascar			
_	EC	Ecuador Estonia	X	MK	The former Yugoslav Republic of	X	υz	
	EE			17111	Macedonia			Saint Vincent and the Grenadines
	ES	Spain		MN	Mongolia		_	Viet Nam
	FI	Finland			Malawi			Yugoslavia
	GB	United Kingdom			Mexico			South Africa
=	GD	Grenada			Mozambique			Zambia
X		Georgia			Norway			Zimbabwe
X	GH	Ghana		NU	Norway		<b>#</b> ₩	Zimoaowe
C	Check-boxes below reserved for designating States which have become party to the PCT after issuance of this sheet:							
		ICARAGUA		SY	SYRIAN ARAB REPUBLIC	X	ÇŞ	SERBIA & MONTENEGRO
	(4) (4)	MUNACO	=					

☑ EG EGYPT..... ⊔ ...... PG PAPUA NEW GUINEA.....

Precautionary Designation Statement: In addition to the designations made above, the applicant also makes under Rule 4.9(b) all other designations which would be permitted under the PCT except any designation(s) indicated in the Supplemental Box as being excluded from the scope of this statement. The applicant declares that those additional designations are subject to confirmation and that any designation which is not confirmed before the expiration of 15 months from the priority date is to be regarded as withdrawn by the applicant at the expiration of that time limit. (Confirmation (including fees) must reach the receiving Office within the 15-month time



#### Supplemental Box is not used, this sheet should not be in



Supplemental Box

2.

If, in any of the Boxes, except Boxes Nos VIII(i) to (v) for which a I. special continuation box is provided, the space is insufficient to furnish all the information: in such case, write "Continuation of Box No...." (indicate the number of the Box) and furnish the information in the same manner as required according to the captions of the Box in which the space was insufficient, in particular:

if more than two persons are to be indicated as applicants and/or inventors and no "continuation sheet" is available: in such case, write "Continuation of Box No. III" and indicate for each additional person the same type of information as required in Box No. III. The country of the address indicated in this Box is the applicant's State (that is, country) of residence if no State of residence is indicated below;

(ii) if, in Box No. II or in any of the sub-boxes of Box No. III, the indication "the States indicated in the Supplemental Box" is checked: in such case, write "Continuation of Box No. II" or "Continuation of Box No. III" or "Continuation of Boxes No. II and No. III" (as the case may be), indicate the name of the applicant(s) involved and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is applicant;

if, in Box No. II or in any of the sub-boxes of Box No. III, the inventor or the inventor/applicant is not inventor for the purposes of all designated States or for the purposes of the United States of America: in such case, write "Continuation of Box No. II" or "Continuation of Box No. III" or "Continuation of Box No. III and No. III" (as the case may be), indicate the name of the inventor(s) and, next to (each) such name, the State(s) (and/or, where applicable, ARIPO, Eurasian, European or OAPI patent) for the purposes of which the named person is inventor;

if, in addition to the agent(s) indicated in Box No. IV, there are further agents: in such case, write "Continuation of Box No. IV" and indicate for each further agent the same type of information as required in Box No. IV;

if, in Box No. V, the name of any State (or OAPI) is accompanied by the indication "patent of addition," or "certificate of addition," or if, in Box No. V, the name of the United States of America is accompanied by an indication "continuation" or "continuation-in-part": in such case, write "Continuation of Box No. V" and the name of each State involved (or OAPI), and after the name of each such State (or OAPI), the number of the parent title or parent application and the date of grant of the parent title or filing of the parent application;

if, in Box No. VI, there are more than five earlier applications whose priority is claimed: in such case, write "Continuation of Box No. VI" and indicate for each additional earlier application the same type of information as required in Box No. VI.

If, with regard to the precautionary designation statement contained in Box No. V, the applicant wishes to exclude any State(s) from the scope of that statement: in such case, write "Designation(s) excluded from precautionary designation statement" and indicate the name or two-letter code of each State so excluded.

Continuation of Box No. IV:

HOEFLING, Marcy M.; KATZ, Gary P.; LAWSON, Gary D.; PLUMMER, J. Paul; SMITH, Charles E.; WARNER, Darrell E.; WILSON, Pamela L.; WOLFS, Denise Y.

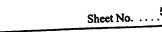
d in the request.

EXXONMOBIL UPSTREAM RESEARCH COMPANY

P. O. Box 2189 Houston, Texas 77252-2189 United States of America

	<u></u>	heet No	<b></b>	
Box No. VI PRIORITY C				
he priority of the following	lier application(s) is hereb	y claimed:		
Filing date	Number	V	Vhere earlier application	is:
of earlier application (day/month/year)	of earlier application	national application: country or Member of WTO	regional application:* regional Office	international application: receiving Office
tem (1) 19 December 2002 (19/12/02)	60/434,947	us		
tem (2)				
item (3)				
item (4)				
item (5)				
	re indicated in the Supplerr	ental Box.		
The receiving Office is reque (only if the earlier application				the portion application(s)
all items item (  * Where the earlier application Industrial Property or one Memb	is an ARIPO application, in er of the World Trade Organi	item (3) item (4) item (4) item (4) item (5) item (6) item (7) ite	party to the Paris Conven application was filed (Rule 4	other, see Supplemental Box tion for the Protection of
	TIONAL SEARCHING A			
Choice of International Seinternational search, indicate the ISA/US	arching Authority (ISA)  e Authority chosen; the two-le arlier search; reference	(if two or more Internation tter code may be used): to that search (if an earli		
Box No. VIII DECLARA	TIONS			
The following declarations check-boxes below and indic	are contained in Boxes Neate in the right column the	os. VIII (i) to (v) (mark the number of each type of de	he applicable eclaration):	Number of declarations
Box No. VIII (i)	Declaration as to the ide			:
Box No. VIII (ii)	Declaration as to the ap- date, to apply for and be	plicant's entitlement, as at granted a patent	the international filing	: 1
Box No. VIII (iii)	Declaration as to the ap	plicant's entitlement, as at ty of the earlier application	the international filing	: 2
Box No. VIII (iv)	United States of Americ			
Dow No. VIII (v)	Declaration as to non-p	rejudicial disclosures or ex	ceptions to lack of novel	ty:

			5	
Sheet No.		•	٠	١,



# ARATION: ENTITLEMENT TO APPLY FOR AND BE GRANTED A PATENT

The declaration must configurate the standardized wording provided for in Section 212; the standardize

Declaration as to the applicant's entitlement, as at the international filing date, to apply for and be granted a patent (Rules 4.17(ii) and 51bis.1(a)(ii)), in a case where the declaration under Rule 4.17(iv) is not appropriate:

In relation to this International Application

EXXONMOBIL UPSTREAM RESEARCH COMPANY is entitled to apply for and be granted a patent by virtue of the following:

an assignment from RUBAS, Paul J. to EXXONMOBIL UPSTREAM RESEARCH COMPANY, dated 3 January, 2003 (03.01.03).

This declaration is made for the purposes of all designations, except the designations of the United States of America.

This declaration is continued on the following sheet, "Continuation of Box No. VIII (ii)".

Sheet 1	.T'		(	6		
Sheet	NO				٠	

		Sheet No	750
Box No. VIII (iii)		: ENTITLEMENT TO CLAIM PRIOR	ITY
DOZ 1101 1 1 ()		ndardized wording provided for in Section x No. VIII (iii). If this Box is not used, this	
The declaration mus	si confi	TNO VIII (iii). If this Box is not used, this	s sheet

The declaration must conjugate the standardized wording provided for in Section 213; otes to Boxes Nos. VIII, VIII (i) to (v) (in general) and the specific rotes to Box No. VIII (iii). If this Box is not used, this sheet should not be included in the request.

Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application specified below, where the applicant is not the applicant who filed the earlier application or where the applicant's name has changed since the filing of the earlier application (Rules 4.17(iii) and 51bis.1(a)(iii)):

In relation to this International Application

EXXONMOBIL UPSTREAM RESEARCH COMPANY is entitled to claim priority of earlier application

No. 60/434,947 filed 19 December 2002 (19.12.02)

by virtue of the following:

an Assignment from RUBAS, Paul J. to EXXONMOBIL UPSTREAM RESEARCH COMPANY dated 3 January, 2003 (03.01.03).

This declaration is made for the purposes of all designations, except the designations of the United States of America.

This declaration is continued on the following sheet, "Continuation of Box No. VIII (iii)".





#### Box No. VIII (iii) DECLARATION: ENTITLEMENT TO CLAIM PRIORITY

The declaration must conform the standardized wording provided for in Section 213; Section 2005 to Boxes Nos. VIII, VIII (i) to (v) (in general) and the specific votes to Box No. VIII (iii). If this Box is not used, this sheet should not be included in the request.

Declaration as to the applicant's entitlement, as at the international filing date, to claim the priority of the earlier application specified below, where the applicant is not the applicant who filed the earlier application or where the applicant's name has changed since the filing of the earlier application (Rules 4.17(iii) and 51bis.1(a)(iii)):

In relation to this International Application

RUBAS, Paul J. is entitled to claim priority of earlier application

No. 60/434,947 filed 19 December 2002 (19.12.02)

by virtue of the following:

the applicant is the inventor of the subject matter for which protection was sought by way of the earlier application.

This declaration is made for the purposes of the following designations for national and/or regional patents: US.

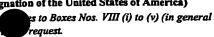
This declaration is continued on the following sheet, "Continuation of Box No. VIII (iii)".

Sheet No. . . 8. . . .

DECLARATION: INVENTORSHIP (only for the purposes of the designation of the United States of America) Box No. VIII (iv)

The declaration must conform and the specific Notes to Box N

following standardized wording provided for in Section 214; s I (iv). If this Box is not used, this sheet should not be included



## Declaration of inventorship (Rules 4.17(iv) and 51*bis.*1(a)(iv)) r the purposes of the designation of the United States of America:

for the barboses of the designment of the	1
hereby declare that I believe I am the original, first and sole (if only nventor is listed below) inventor of the subject matter which is claimed a	nd for which a parent is so again.
This declaration is directed to the international application of which it for	
This declaration is directed to international application No. PCT/ o Rule 26ter).	(if furnishing declaration pursuant
hereby declare that my residence, mailing address, and citizenship are a	s stated next to my name.
I hereby state that I have reviewed and understand the contents of the claims of said application. I have identified in the request of said apploreign priority, and I have identified below, under the heading "Prior A the World Trade Organization, day, month and year of filing, any application than the United States of America, including any PCT internationa United States of America, having a filing date before that of the application	pplications," by application number, country or Member of ation for a patent or inventor's certificate filed in a country application designating at least one country other than the
Prior Applications:	
I hereby acknowledge the duty to disclose information that is known by §1.56, including for continuation-in-part applications, material information application and the PCT international filing date of the continuation	n-in-part application.
I hereby declare that all statements made herein of my own knowledge belief are believed to be true; and further that these statements were ma- like so made are punishable by fine or imprisonment, or both, under S such willful false statements may jeopardize the validity of the application	ection 1001 of Title 18 of the United States Code and that
Name: RUBAS, Paul J.  Residence: Houston, Texas (city and either US state, if applicable, or country)  Mailing Address: 8906 Pontiac Drive  Houston, Texas 77096	
Citizenship: United States of America.  Inventor's Signature: A Park Y (if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)	Date: 23 Softenber 2003  (of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the international application)
Name:	
Residence:	
Mailing Address:	
Citizenship:  Inventor's Signature:  (if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)	Date:  (of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the international application)
This declaration is continued on the following sheet, "Continuation	n of Box No. VIII (iv)".

	Sheet No9	
Box No. IX CHECK LIST LANGUAGE O	FILING	
This international application  (a) in paper form, the following number of sheets:  request (including declaration sheets)  description (excluding sequence listings and/or tables related thereto)  claims abstract drawings  Sub-total number of sheets  sequence listings tables related thereto  (for both, actual number of sheets if filed in paper form, whether or not also filed in computer readable form; see  (c) below)  Total number of sheets  (Section 801(a)(i))  (i) sequence listings  (ii) tables related thereto  (Section 801(a)(ii))  (i) sequence listings  (ii) tables related thereto  Type and number of carriers (diskette, CD-ROM, CD-R or other) on which are contained the  sequence listings:  (additional copies to be indicated under items 9(ii) and/or 10(ii), in right column)  Figure of the drawings which	This international application is acconditerm(s) (mark the applicable check-boxes below and indicate in right column the number of each item):  1.  fee calculation sheet  2.  original separate power of attorney  3.  original general power of attorney  4.  opy of general power of attorney; reference number, if any:  5.  statement explaining lack of signature  6.  priority document(s) identified in Box No. VI as item(s):  7.  translation of international application into (language):  8.  separate indications concerning deposited microorganism or other biological material  9.  sequence listings in computer readable form (indicate type and number of carriers)  (i)  copy submitted for the purposes of international sear under Rule 13ter only (and not as part of the interna application)  (ii)  (only where check-box (b)(i) or (c)(i) is marked in lecolumn) additional copies including, where applicate the copy for the purposes of international search under Rule 13ter  (iii)  copy submitted for the purposes of international search under Rule 13ter  (iiii)  copy or copies with the sequence listings mentioned (indicate type and number of carriers)  (i)  copy submitted for the purposes of international search under (indicate type and number of carriers)  (i)  copy submitted for the purposes of international search under section 802(b-quater) only (and not as part of the international application)  (ii)  (only where check-box (b)(ii) or (c)(ii) is marked in column) additional copies including, where applicate copy for the purposes of international search under solventy or copies with the tables mentioned in left column or copies with the tables mentioned in left column  11. cother (specify): Return receipt postcard	: 1 : 1 : 1 : 1 : 1 : 1 : 1 : 1 : 1 : 1
should accompany the abstract:	international application: ENGLISH	
Box No. X SIGNATURE OF APPLICAN's Next to each signature, indicate the name of the person signing Douglas J. COLLINS	T, AGENT OR COMMON REPRESENTATIVE g and the capacity in which the person signs (if such capacity is not obvious from rec  2/23  Date	nding the request).
	For receiving Office use only	T
Date of actual receipt of the purported international application:     Corrected date of actual receipt due to late timely received papers or drawings complete purported international application:	For receiving Office use only  are but eting the	2. Drawings:
Date of timely receipt of the required corrections under PCT Article 11(2):		not received
5. International Searching Authority (if two or more are competent):	6. Transmittal of search copy delayed until search fee is paid	

For International Bureau use only

Form PCT/RO/101 (last sheet) (January 2003) LegalStar 2003, Form PCTREQ

Date of receipt of the record copy by the International Bureau:

See Notes to the request form

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### FEE CALCULATION SHEET

	For	ring Office use only	
nal Appl	ication N	lo	

FEE CALCULATION SHEET	International Application No.
Annex to the Request	
	<del></del>
Applicant's or agent's file reference 2002.002	Date stamp of the receiving Office
Applicant EXXONMOBIL UPSTREAM RESEARCH COMPANY	1
CALCULATION OF PRESCRIBED FEES	
	240.00 T
1. TRANSMITTAL FEE	
2. SEARCH FEE	700.00 S
International search to be carried out by	
(If two or more International Searching Authorities are competent search, indicate the name of the Authority which is chosen to carry	out the international search.)
3. INTERNATIONAL FEE	
Rasic Fee	total number of sheets
Where item (b) and/or (c) of Box No. IX apply, enter Sub-t	total number of sheets 28
Where item (b) and (c) of Box No. IX do not apply, enter T	
b1 5 30 shoots	476.00 b1
b1   first 30 sheets	0.00 b2
number of sheets fee per sheet	
in excess of 30	r tables related
additional component (only if sequence listings and/or thereto are filed in computer readable form under Section 801(a)(i	ion 801(a)(i), or
both in that form and on paper, under Section 801(a)(i	
400 x	b3
fee per sheet	476.00 B
Add amounts entered at b1, b2 and b3 and enter total at B.	
Designation Fees The international application contains	ns
The international application contains 122 designation 104.00	520.00 D
number of designation fees amount of designation fee	
payable (maximum 5)	996.00 [ ]
Add amounts entered at B and D and enter total at I	
(Applicants from certain States are entitled to a reduction of international fee. Where the applicant is (or all applicants are)	of 75% of the so entitled, the
international jee. where the applicant is (or all approximately)	
4. FEE FOR PRIORITY DOCUMENT (if applicable)	20.00 P
4. FED FOR I RIGHT I BOOK I TO THE	4 050 00
TOTAL PROPERTY AND R	1,956.00
5. TOTAL FEES PAYABLE	e TOTAL box
Add amounts entered at 1, 5, 1 and 1, and other terms at 1. The designation fees are not paid at this time.	
MODE OF PAYMENT    Authorization to charge	order
deposit account (see below)	
cheque bank draft	
AUTHORIZATION TO CHARGE (OR CREDIT) DEPO	Offices) Receiving Office: RO/
(This mode of payment may not be available at all receiving	
Authorization to charge the total fees indicated above.	Deposit Account No.: 05-1328
<del></del>	Date: 9/23/03
(This check-box may be marked only if the conditions f the receiving Office so permit) Authorization to cha	for deposit accounts of any deficiency or Name: Douglas J. COLLINS
credit any overpayment in the total fees indicated above	Name: Douglas J. COLLINS
Authorization to charge the fee for priority document.	Signature:
POTO (101 (Apper) (January 2003)	See Notes to the fee calculation shee

Form PCT/RO/101 (Annex) (January 2003) LegalStar 2003, Form PCTREQ